IN THE SPECIFICATION:

Please amend paragraph number **[0003]** as follows:

[0003] Background of Related Art: Conventionally, metal masks were used to selectively control the application of solder balls to the contact pads through which a semiconductor device would electrically communicate with other devices external thereto. Metal masks have typically been made from molybdenum, which exhibits ~~long-term~~ long-term dimensional stability at high temperature and may be reused.

Please amend paragraph number **[0029]** as follows:

[0029] With reference to FIG. 1, a semiconductor device 10 according to the present invention, which includes a substrate 12 with integrated circuitry thereon and contact pads 14 (*see* FIGs. 2-8) in electrical communication with the integrated circuitry is illustrated. As depicted, substrate 12 is a semiconductor die and contact pads 14 are the bond pads of the semiconductor die. Typically and conventionally, the bond pads, when used with a tin/lead solder, may be coated with a plurality of superimposed metal layers to enhance the bonding of the solder to the metal of the bond pad. Further, contact pads may be offset from the bond pads and connected thereto by circuit traces extending over the active surface so as to rearrange an input/output pattern of bond pads to a pattern more suitable for an array of conductive bumps. Semiconductor device 10 also includes a solder mask 16 comprised of dielectric material disposed over an active surface 13 of substrate 12. Solder mask 16 includes apertures 18 aligned substantially over contact pads 14. Conductive structures 24 are disposed in apertures 18 so as to communicate electrically with their corresponding contact pads 14 exposed to apertures 18. As used herein, the term "semiconductor die" encompasses partial and full wafers as well as other nonwafer-based substrates, ~~including~~ including, by way of example ~~only~~ only, silicon on sapphire ("SOS"), silicon on glass ("SOG") and, in general, silicon on insulator ("SOI") substrates.

Please amend paragraph number **[0032]** as follows:

[0032] As an example of the manner in which solder mask 16 may be disposed on active surface 13, a solder mask 16 comprising a film of a dielectric material with ~~pre-formed~~ preformed apertures 18 therethrough may be aligned with the features of active surface 13, such as contact pads 14, and secured (e.g., by a pressure sensitive adhesive) to active surface 13. Preferably, the material from which solder mask 16 is made is a ~~non-conductive~~ nonconductive polymer, such as a polyimide, that withstands the temperatures of the molten conductive materials, such as solders (e.g., temperatures from about 190° C. to about 260° C.) or conductive elastomers, to be disposed within apertures 18 without undergoing substantial conformational changes and without substantially degrading. Alternatively, solder mask 16 can be made of other dielectric materials, such as silicon oxide, glass (e.g., BPSG, PSG, or BSG), or silicon nitride. Apertures 18 may be preformed through the film of dielectric material by known laser ablation or laser drilling processes, by known mask and etch processes, or by other known micron-scale and ~~submicron-scale~~ submicron-scale processes for patterning the particular dielectric material employed as solder mask 16.

Please amend paragraph number **[0033]** as follows:

[0033] Alternatively, a layer of ~~photoimagable~~ photoimageable polymeric material, such as a ~~photoimagable~~ photoimageable polyimide, may be disposed on active surface 13 by known processes, such as by spin-on techniques, by curtain coating, by roller coating or by use of electrostatic spray. Solder mask 16 and the apertures 18 therethrough may then be formed from the layer of ~~photoimagable~~ photoimageable material by known photoimaging processes, thereby substantially exposing contact pads 14 to apertures 18 and through solder mask 16. Again, the ~~photoimagable~~ photoimageable polymeric material preferably withstands the temperatures of molten conductive material (e.g., solders, metals, and metal alloys) to be disposed within apertures 18 without undergoing substantial conformational changes or substantial degradation.

Please amend paragraph number **[0034]** as follows:

[0034] As another alternative, solder mask 16 may be fabricated by disposing a layer of dielectric material, such as a ~~nonphotoimagable~~ nonphotoimageable polyimide, silicon oxide, glass, or silicon nitride, on active surface 13 of substrate 12 by known processes. For example, known spin-on techniques may be employed to form layers of polymeric material and glass on active surface 13. As another example, layers of polymeric material may also be disposed on active surface 13, by curtain coating, by roller coating, by use of electrostatic spray, or by screen printing, which also patterns the layer of polymeric material substantially simultaneously with disposing the polymeric material on active surface 13. Known chemical vapor deposition ("CVD") techniques may be employed to dispose a layer of silicon oxide, glass, or silicon nitride on active surface 13.

Please amend paragraph number **[0040]** as follows:

[0040] Alternatively, other means of reducing the thickness of solder mask 16 may also be employed, such as shrinking a polymeric solder mask 16 with an oxygen plasma, with another type of plasma, with chemical shrinking agents, or by exposing solder mask 16 to radiation. An exemplary method of shrinking small spheres made of polystyrene, polydivinylbenzene, or polytoluene is disclosed in United States Patent 5,510,156, which issued to Zhao on April 23, 1996, the disclosure of which is hereby incorporated herein by this reference in its entirety. If an elastomeric material is employed to fabricate conductive structures 24, the technique by which the thickness of solder mask 16 is reduced preferably does not substantially affect the configurations of the elastomeric conductive structures 24.

Please amend paragraph number **[0044]** as follows:

[0044] FIG. 7 illustrates a conductive structure 24‴ with an upper portion 24a‴ having a transverse cross section taken along the height of upper portion 24a‴ of substantially uniform configuration. A lower portion 24b‴ of conductive structure 24‴ is located between contact pad 14 and upper portion 24a‴. The transverse cross section taken along the height of lower

portion 24b''' also has a substantially uniform configuration. Lower portion 24b''' has a smaller transverse cross section than upper portion 24a'''. The aperture 18 (*see* ~~FIGs. 2-4B)~~ FIGs. 2-4B) within which conductive structure 24''' is formed may be defined by disposing a photomask of the type disclosed in United States Patent 5,741,624, which issued to Jeng et al. on April 21, 1998, the disclosure of which is hereby incorporated herein in its entirety by this reference. Material of the solder mask 16 may then be removed by known etching processes through holes in the photomask to define stepped apertures 18 over contact pads 14.

Please amend paragraph number **[0045]** as follows:

[0045] Turning to FIG. 8, another conductive structure 124 is illustrated. Conductive structure 124 has an outwardly curved center portion, which is thicker than the ends of conductive structure 124. Known processes, such as isotropic etching techniques, may be employed to form apertures 18 through solder mask 16 (*see* ~~FIGs. 2-4B)~~ FIGs. 2-4B) within which conductive structure 124 may be formed.